

Questions from 2003 DER Conference

Cabin Safety Breakout Session November 6, 2003

Question: How is compliance for seat installation documented when using an Aerospace Recommended Practice (ARP) statement or seat TSO data?

Answer: An ARP statement or TSO data may be used as FAA approved (valid) data. The DER must determine that the data is applicable to the installation and document this compliance finding on an FAA Form 8110-3 approving the appropriate descriptive data to all applicable Part 25 (or Part 23) requirements (Reference FAA Memoranda 01-115-38, 02-115-21, 01-115-32, and FAA Policy number PS-AIR100-2003-ARP5526). Per the memoranda, the DER needs to have a statement from the seat manufacturer (TSO holder) that they have met the appropriate aspects of the ARP.

Question: How much DER review of ARP or TSO data is necessary?

Answer: As much as necessary for you to be able to find compliance for the installation. This may be very little, or it may be a lot, depending upon the complexity of the data presented and the installation. The intent is to have sufficient and direct upfront communication between the DER and seat manufacturer to ensure that all requirements are met. With adequate upfront communication, the installer can receive a statement from the seat TSO holder and no further review by the FAA or designee may be required. If a discrepancy is found in the data, report it to your local ACO, and it will be worked ACO-to-ACO. (Reference FAA Memoranda 01-115-38, 02-115-21, 01-115-32, and FAA Policy number PS-AIR100-2003-ARP5526).

Question: What is the purpose of a Partnership for Safety Plan (PSP) and does a seat installer need a copy of the PSP to know what data is included in the TSO approval?

Answer: The purpose of a PSP is to establish a written mode of operation between the supplier and their local ACO and formally document a working agreement.

Some PSP's may cover how additional data, beyond the TSO requirements, could be collected. The installer should be aware of what compliance findings are allowed outside of the TSO, which may require the applicant to have a copy of the PSP. Evidence of approval is limited to traceability of the data back to the TSO approval letter and/or FAA statement (such as the TSO application letter listing the data as a submittal in addition to the TSO, and evidence of FAA approval of additional data).

Question: Are PSP's applicable to foreign suppliers?

Answer: No, the FAA cannot negotiate PSP's directly with foreign suppliers. The FAA relies on bilateral agreements in these cases.

Question: Can DER's accept an ARP 5475 statement from someone other than a TSOA authorized seat supplier or on items outside of the "umbrella" of the seat TSO?

Answer: No, the intent is for the seat manufacturer to take responsibility and use the ARP. If the seat supplier does not provide this coverage, the TC or STC applicant is responsible. From FAA Memorandum 02-115-21, dated November 21, 2002: "...This acknowledgment is limited to video components installed by the seat supplier on the seats that they manufacture and for which TSO approval, to TSO-C39 (latest change) or TSO-C127 (latest change), is obtained."

Question: Have any of the seat streamlining initiatives been harmonized with the JAA?

Answer: The harmonized portion of seat streamlining is the revision to AC 25.562-1. This is sometimes overlooked as a part of the streamlining effort, but it is a big part. The rest of the initiatives have not been "harmonized" per se, but EASA is aware of them and we are working with the CAA to eliminate problems.

Question: Should dynamic seat DER's sign for any portion of CFR 25.562(a)?

Answer: If the dynamic seat DER participates in the interior compliance evaluation (the walk) the dynamic seat DER should sign for 25.562(a).

If the applicant for a TC or STC determines it is necessary to split this compliance finding between two DER's, the applicant should propose, in writing (or have on record with the FAA), how that division of responsibility will be handled. If the 25.562(a) interior compliance evaluation is a shared responsibility between the dynamic seats DER and the interiors DER it is expected that both would find compliance for 25.562(a). The details of what exactly one DER ultimately does should be discussed between the two DER's to ensure that 100% of the data is approved and supports the interior compliance evaluation. In this case, both DER's are sharing the review and both are finding compliance to 25.562(a).

Question: Who should be contacted for more information about AC 20-146 and dynamic modeling applications?

Answer: Contact Patrick Mullen. He is an engineer in the Small Airplane Directorate located in Kansas City. His phone number is (816)-329-4128

Question: What consideration should be given when it has been determined that a 16g seat will deform, or deflect, enough to contact a 9g structure?

Answer: Per TAD guidance: First, from an injury criteria standpoint, we have to assume the actual item is there, and consider its effect on the occupant. This is done either by test or analysis (See AC 20-146 for possible methods of analysis). We also should consider the structural effects of interferences between the seat and surrounding structure, so that the seat does not induce or cause a failure in the adjacent components/equipment. However, the substantiation would be limited to static loads under CFR 25.561 (9g to 9g) (and any flight loads, if relevant); and separately CFR 25.562 loads (16g to 16g). Deformations and load sharing between CFR 25.561 and CFR 25.562 (9g to 16g & 16g to 9) need not be considered.

Question: How will specific UKCAA requirements (e.g., UKCAA AN No. 64) be administered through EASA?

Answer: The EASA objective is to standardize the EU requirements. The UKCAA has petitioned for certain exceptions to the EU regulatory harmonization. The resolution to the UKCAA petition is pending.

Question: Where has MIDO documented acceptance of using the verbiage "...or latest FAA approved revision" on 8120-10 forms?

Answer: MIDO has not provided written documentation of this policy. There is an internal agreement between Seattle MIDO and SACO that this practice is acceptable. If this is an issue contact the MIO manager.

Note: That with or without the statement "or latest FAA-approved revision" unsatisfactory findings must be dispositioned and documented.

Question: Can a TIA be delegated to designees?

Answer: Per FAA order 8110.37C par 204 (c), TIA's require FAA approval. The FAA may request the applicant prepare a TIA.

The applicant can approve a TIA when there is a prior agreement with the FAA and when a deviation to the order has been granted.

Question: If dual latching is required for the airplane (CFR 25.785 post-Amendment 25-51), is it only for the forward facing compartment doors?

Answer: For some airplanes, the dual latching requirements are found in part 121, for others it is in part 25. For part 121, paragraph 121.311(f) requires compliance with Paragraph 25.785 at amendment 25-51. Advisory Circular 25.785-1A,

Paragraph 7(b) specifies that if a flight attendant seat is located **three rows fore or aft** from center of a galley or stowage compartment then dual latching or equivalent is required to retain all items of mass in galley or stowage compartment. As you can see, this does not state which direction the “item of mass” is facing, thus, all items of mass, regardless of direction must have dual latching or equivalent. Part 25 would be similarly interpreted.

Question: Should a CFR be listed on the FAA Form 8110-3 if it is not applicable? For example, should CFR 25.621 Casting Factors be listed if no castings are being used?

Answer: No, only the applicable CFR should be listed on the FAA Form 8110-3. Reviewing compliance data, merely to determine applicability of CFR's is not a reason, in and of itself, to list the CFR on the FAA Form 8110-3.